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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

ADVISORY ACTION

Status of the Claims

1. Claims 8-14 have been cancelled by the Applicant in correspondence filed on 08/30/2010. Claims 1-7 are currently pending.

RESPONSE TO ARGUMENTS

2. Acknowledgement is made of the Declaration under 37 CFR § 1.132 by Dr. David Gershon (hereafter the Gershon Declaration) received on 09/07/2010. Examiner notes that the data and analysis contained within the Gershon Declaration are identical to those presented in the instant specification.

3. Claims 1-14 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. Claims 8-14 have been cancelled. Applicant traversed this rejection on the grounds that Examiner's conclusion of a lack of enablement is incorrect in light of a careful reading of the specification. Applicant contends that the instant specification in conjunction with the prior art provide sufficient instruction to the ordinarily skilled artisan to administer CTC-96 to a subject for the treatment of a papilloma virus infection. Applicant submits that Examiner has provided no rational basis for questioning the data disclosed in the instant specification. Applicant provides the Gershon Declaration to demonstrate the effectiveness of CTC-96 on graft size. For these reasons, Applicants seek reconsideration and withdrawal of the rejection of Claim 1-7 under 35 USC § 112, first paragraph. Respectfully, Examiner does not find Applicant's arguments persuasive.

4. The rejected claims are drawn to a method of treating a disease caused by papilloma virus. Reducing or removing papilloma virus from a subject is not the same as treating a disease caused by papilloma virus (i.e. papilloma virus-induced tumor). Thus, demonstration by the Applicant and/or the art that CTC-96 reduces or eliminates papilloma viral load or infectivity is irrelevant to the instant claims. The appropriate question is whether or not the combination of the specification and the art at the time of filing provided sufficient enablement for the treatment of a disease caused by papilloma virus. For these reasons, Tables 2-4 and 6-11 of the specification and the Gershon Declaration are irrelevant to the question of enablement because they demonstrate only that CTC-96 reduces papilloma virus infectivity. None of these Tables actually demonstrate that CTC-96 is efficacious at treating or avoiding a disease caused by papilloma virus.

5. Tables 1 and 5 in the instant disclosure indicate that CTC-96 has no effect on graft growth. In Table 1, the result of the control (2.58 ±0.808 mm) encompasses the entirety of the experimental samples. The specification interprets the results in Table 1 to indicate that "there was a small but significant effect on the infectivity of HPV-11 when compared to the control" (pg 6, para 0023, emphasis added). There is no interpretation of Table 1 with respect to the effect of CTC-96 on graft size. In this model, the growth of the graft is the disease caused by papilloma virus. While Table 1 shows that the median graft size is smaller in the experimental groups relative to the control group and that graft size reduction appears to be in a dose-dependent fashion, there is no motivation to use only the median values and disregard the mean values and the standard deviations. Moreover, statistics indicating significance are not presented.

6. Table 5 suffers from a similar deficit. The graft grows 57.50 ±48.59% in the control group, and the presence of 0.1% or 1% CTC-96 has no effect on graft size (graft grows 64.53 ±41.92% or 91.39 ±127.84%, respectively). The median graft growth for the three conditions was similar, (50.65% (control), 60.51% (0.1% CTC-96), and 52.03% (1% CTC-96)). The interpretation disclosed in the instant specification states that "[t]he ANOVA fails to show a treatment effect on the growth of individual grafts" (pg 10, para 0032).

7. The data contained within Gershon Declaration do not persuasively demonstrate that the reduction in graft size is caused by administration of CTC-96. Likewise Table 1, the standard deviation of the control group is sufficiently large that it masks any effects that CTC-96 may have on tumor size. Furthermore, Figure 1 of the provisional '206 application shows no difference on the percentage of graft growth in control and CTC-96-treated SCID mice. Taken together, the data disclosed in Tables 1 and 5 of the instant specification, the Gershon Declaration, and Figures 1 and 2 of the provisional application indicate that CTC-96 has no effect on HPV-induced graft growth, *in vivo*.

8. The findings of the instant specification are consistent with those disclosed in the prior art. Ostrow, et al., found that rabbits treated with CTC-96 displayed a dose-dependent increase in tumor size, time to first tumor, and number of rabbits developing tumor (Table 1). The tumor is interpreted to be a disease caused by papilloma virus. The differences were statistically significant with $P<0.001$ for tumor size. Ostrow, et al., state that their results "show that the use of [CTC-96] may be contraindicated in patients with papillomavirus infections" (pg 29, lines 9-10, emphasis added). Applicant has provided no data or argument that would overcome this statement. Bonnez, et al. (Proceedings of the 18th International Papilloma Conference, 2001,

provided in IDS), disclose that CTC-96 (termed Doxovir™) "had no proliferative or inhibitory effect on the growth of HPV-11-infected human grafts." Thus, the data of Bonnez, et al., corroborates the disclosure of the instant specification and the teachings of Ostrow, et al. Therefore, contrary to Applicant's assertions, Examiner has provided a rational basis for questioning whether CTC-96 can treat a disease caused by papilloma virus. This rational basis is founded upon data that was present in the prior art (Ostrow, et al., and Bonnez, et al.) as well as Applicant's own data.

9. For the above reasons, the rejection of Claims 1-7 under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement is maintained.

Conclusion

10. Claims 1-7 remain rejected.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Zarek whose telephone number is (571) 270-5754. The examiner can normally be reached on Monday-Thursday, 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brandon Fetterolf can be reached on (571) 272-2919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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PEZ

/San-ming Hui/
Primary Examiner, Art Unit 1628